

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A mixing apparatus for mixing a flowable material, the mixing apparatus comprising:

a first body having a first mating surface and a plurality of first cavities formed on the first mating surface, the plurality of first cavities being arranged along a first path to provide a variation in depth measured from the first mating surface; and

a second body having a second mating surface configured to mate with the first mating surface of the first body, the second body including a plurality of second cavities formed on the second mating surface, the plurality of second cavities being arranged along a second path to provide a variation in depth measured from the second mating surface;

wherein the first mating surface of the first body is mated with the second mating surface of the second body to align the first path with the second path, the first cavities fluidically communicating with the second cavities to form [[an]] one continuous internal flow path from an inlet through the first cavities and second cavities to an outlet, the continuous internal flow path having multiple depth turns to direct flow between the first body and the second body formed by the depth variations in the first cavities of the first body and the second cavities in the second body;

wherein the first cavities are spaced from each other along the first path by first regions of zero depth measured from the first mating surface;

wherein the second cavities are spaced from each other along the second path by second regions of zero depth measured from the second mating surface; and

wherein the first regions of zero depth of the first path and the second regions of zero depth of the second path are staggered along the continuous internal flow path, such that the first regions of zero depth of the first path of the first body overlap with the second cavities of the second body, and the second regions of zero depth of the second path of the second body overlap with the first cavities of the first body.

2.-4. (canceled)

5. (original) The mixing apparatus of claim 1 wherein the multiple depth turns are spaced by substantially regular intervals.

6. (original) The mixing apparatus of claim 1 wherein the first mating surface and the second mating surface are generally planar.

7. (original) The mixing apparatus of claim 1 wherein the plurality of first cavities comprise at least one first cavity having a surface turn on the first mating surface.

8. (original) The mixing apparatus of claim 7 wherein the surface turn is about 90°.

9. (original) The mixing apparatus of claim 1 wherein the first mating surface is bonded to the second mating surface.

10. (original) The mixing apparatus of claim 1 wherein the surfaces of the internal flow path are substantially free of cracks and crevices visible to human eye.

11. (currently amended) A mixing apparatus for mixing a flowable material, the mixing apparatus comprising:

a first shell having a first mating surface and a plurality of first cavities formed on the first mating surface, the plurality of first cavities being arranged along a first path to provide a variation in depth measured from the first mating surface; and

a second shell having a second mating surface configured to mate with the first mating surface of the first shell, the second shell including a plurality of second cavities

formed on the second mating surface, the plurality of second cavities being arranged along a second path to provide a variation in depth measured from the second mating surface;

wherein the first mating surface of the first shell is mated with the second mating surface of the second shell to align the first path with the second path, the first cavities fluidically communicating with the second cavities to form [[an]] one continuous internal flow path from an inlet through the first cavities and second cavities to an outlet, the first cavities being spaced from each other along the first path by regions of shallow depth from the first mating surface, the second cavities being spaced from each other along the second path by regions of shallow depth from the second mating surface, the first regions of shallow depth of the first mating surface and the second regions of shallow depth being staggered along the continuous internal flow path, such that the first regions of shallow depth of the first mating surface of the first shell overlap with the second cavities of the second shell, and the second regions of shallow depth of the second mating surface of the second shell overlap with the first cavities of the first shell.

12. (original) The mixing apparatus of claim 11 wherein the plurality of first cavities comprise at least one first cavity having a surface turn on the first mating surface.

13. (original) The mixing apparatus of claim 11 wherein the first mating surface and the second mating surface are generally planar.

14. (currently amended) The mixing apparatus of claim 11 wherein the first regions of shallow depth comprise first regions of zero depth and the second regions of shallow depth comprise second regions of zero depth, such that the first regions of zero depth of the first mating surface of the first shell overlap with the second cavities of the second shell, and the second regions of zero depth of the second mating surface of the second shell overlap with the first cavities of the first shell.

15. (original) The mixing apparatus of claim 11 wherein the first regions of shallow depth of the first mating surface and the second regions of shallow depth being staggered along the internal flow path at substantially regular intervals.

16. (currently amended) A method of making a mixing apparatus for mixing a flowable material, the method comprising:

providing a first body having a first mating surface and a plurality of first cavities formed on the first mating surface, the plurality of first cavities being arranged along a first path to provide a variation in depth measured from the first mating surface;

providing a second body having a second mating surface configured to mate with the first mating surface of the first body, the second body including a plurality of second cavities formed on the second mating surface, the plurality of second cavities being arranged along a second path to provide a variation in depth measured from the second mating surface; and

mating the first mating surface of the first body with the second mating surface of the second body to align the first path with the second path, the first cavities fluidically communicating with the second cavities to form [[an]] one continuous internal flow path from an inlet through the first cavities and second cavities to an outlet, the continuous internal flow path having multiple depth turns to direct flow between the first body and the second body formed by the depth variations in the first cavities of the first body and the second cavities in the second body;

wherein the first cavities are spaced from each other along the first path by first regions of zero depth measured from the first mating surface;

wherein the second cavities are spaced from each other along the second path by second regions of zero depth measured from the second mating surface; and

wherein the first regions of zero depth of the first path and the second regions of zero depth of the second path are staggered along the continuous internal flow path, such that the first regions of zero depth of the first path of the first body overlap with the second cavities of the second body, and the second regions of zero depth of the second path of the second body overlap with the first cavities of the first body.

17. (original) The method of claim 16 wherein mating comprises bonding the first mating surface with the second mating surface.

18. (original) The method of claim 16 wherein the multiple depth turns are spaced by substantially regular intervals.

19. (original) The method of claim 16 wherein the first body and the second body are formed by molding.

20. (original) The method of claim 16 wherein the plurality of first cavities comprise at least one first cavity having a surface turn on the first mating surface.

21. (new) The method of claim 20 wherein the surface turn is about 90°.

22. (new) The method of claim 16 wherein the first mating surface and the second mating surface are generally planar.

23. (new) The mixing apparatus of claim 12 wherein the surface turn is about 90°.